

REMARKS

Claims 17-31 and 33-46 remain in this application. Claims 17 and 33 have been amended, without prejudice. By these amendments, no new matter has been added. Independent Claims 27 and 41 are not amended. Limitations similar to those already in Claims 27 and 41 have been added to Claims 17 and 33. Accordingly, the amendments should not necessitate additional searching.

Before addressing the pending rejections of Claims 17-31 and 33-46 in detail, an overview of the invention may be helpful. The invention provides an apparatus and method for controlling different trains on a common track layout. The different trains can be configured to respond to different non-interoperable command protocols. For example, a legacy train in which speed is controlled by track voltage, a DC-offset controlled train, and a digitally-controlled train may be controlled on the same track using the same power supply and controller. Previously, trains of different types could not conveniently be used together.

According to an aspect of the invention, a controller senses the voltage applied to the track by a conventional power supply using an AC or DC power sensor. The controller then outputs a corresponding speed command in a selected command protocol, such as a DC-offset protocol, a digital protocol, or both. Legacy trains on the layout will respond to variations in track voltage in a conventional fashion. At the same time, newer command-controlled trains automatically receive an appropriate speed command from the controller. Therefore, all trains respond to variations in track voltage as if speed-controlled directly by the track voltage, and a user may control the speed of all trains merely by controlling the track voltage in a conventional fashion. Additional functions and features of trains having interoperable command protocols can also be controlled using the controller. Thus, the invention provides a method of conveniently controlling a variety of otherwise non-interoperable trains.

The Examiner rejected Claims 17-31 and 33-46 under 35 U.S.C. § 102(b) as

anticipated by Young. These rejections are respectfully traversed. In the previous Office Action, the Examiner indicated that Claims 17-31 were allowable, while rejecting Claims 1-16 over Young. Applicants submit that the current Office Action does not set forth a sufficient basis for withdrawing the previous indication of allowance of Claims 17-31, or for rejecting Claims 33-46, for the reasons set forth below.

Young discloses an apparatus and method for control of model trains using a remote control unit. The remote unit receives user input from a keypad or other user input. Commands are transmitted to model trains using one or more suitable transmission methods, such as DC offset signaling or frequency shift keyed signaling. Young fails to disclose or suggest using input from a voltage sensor to determine a commanded train speed. As such, Young does not anticipate the invention under § 102, nor does it bar patentability under § 103.

In particular, each of independent Claims 17, 27, 33 and 41 define a method, system or apparatus for control of a model train, in which a controller determines a commanded train speed based on a value of voltage that is applied to a model track. In contrast, Young discloses sensing a zero-crossing point of an AC power signal, but only for the purpose of implementing constant-power DC offset signaling. (See, e.g., Young, 5:30-49.) Young does not disclose or suggest determining a commanded train speed based on a voltage or power applied to a model track. Failing to disclose or suggest every element of the independent claims, Young therefore cannot anticipate them. The remaining claims are therefore also allowable, at least as depending from allowable base claims.

Furthermore, it would not have been obvious to use track power to control speed of command-controlled trains. This requires determining a commanded train speed using input from a track power sensor. One of ordinary skill would have avoided using additional circuit elements and steps to perform what could already be accomplished using a speed command. Instead, one of ordinary skill would have followed accepted practice for prior-art command-controlled trains, and used a constant-power track

Serial No. 10/631,311
June 6, 2005
Page 12

voltage with commanded train speed determined from user input. Indeed, Young itself teaches away from varying track power to control train speed, and instead teaches using a remote control unit for speed control. (Young, 4:46-52.)

In view of the foregoing, the Applicants respectfully submit that Claims 17-31 and 33-46 are in condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested, and a timely Notice of Allowability is solicited.

To the extent it would be helpful to placing this application in condition for allowance, the Applicants encourage the Examiner to contact the undersigned counsel and conduct a telephonic interview.

To the extent necessary, Applicants petition the Commissioner for a one-month extension of time, extending to July 5, 2005 (the first business day following July 2, 2005), the period for response to the Office Action dated March 2, 2005. The Commissioner is authorized to charge any shortage in the fees, including extension of time fees, to Deposit Account No. 50-0639.

Respectfully submitted,



Date: June 6, 2005

Brian M. Berliner
Attorney for Applicants
Registration No. 34,549

O'MELVENY & MYERS LLP
400 South Hope Street
Los Angeles, CA 90071-2899
Telephone: (213) 430-6000